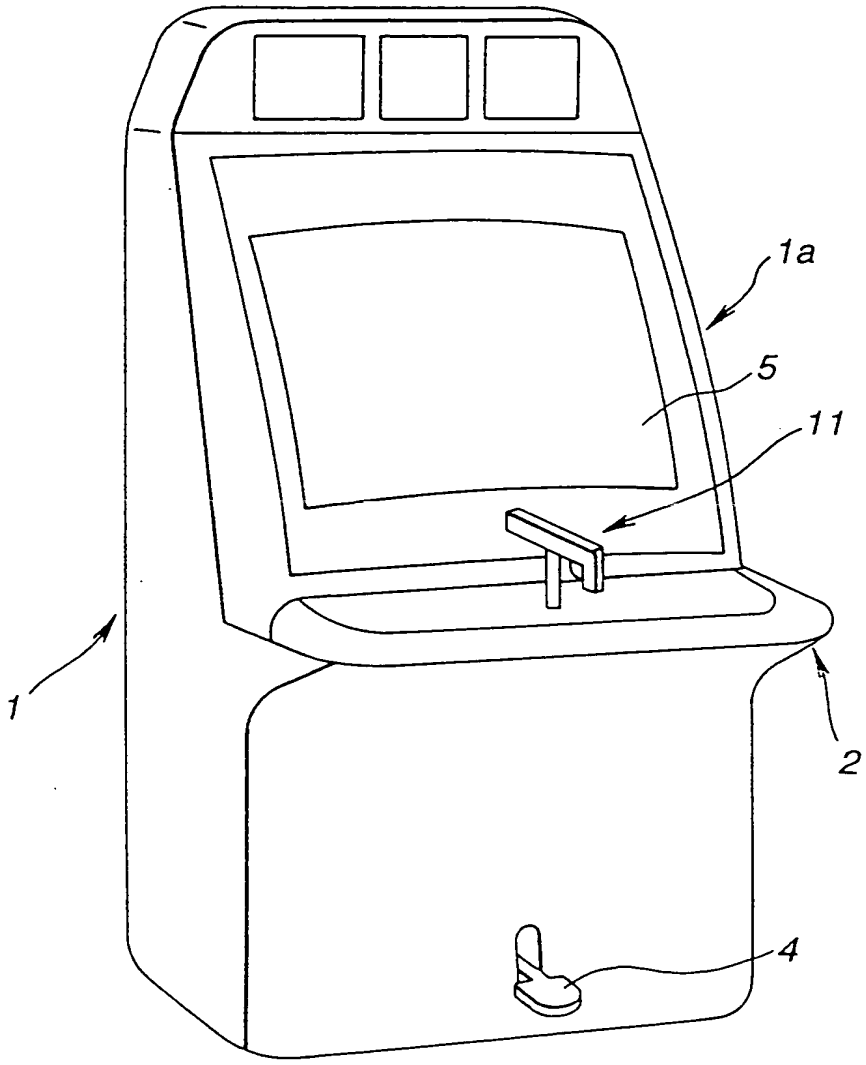


FIG.1

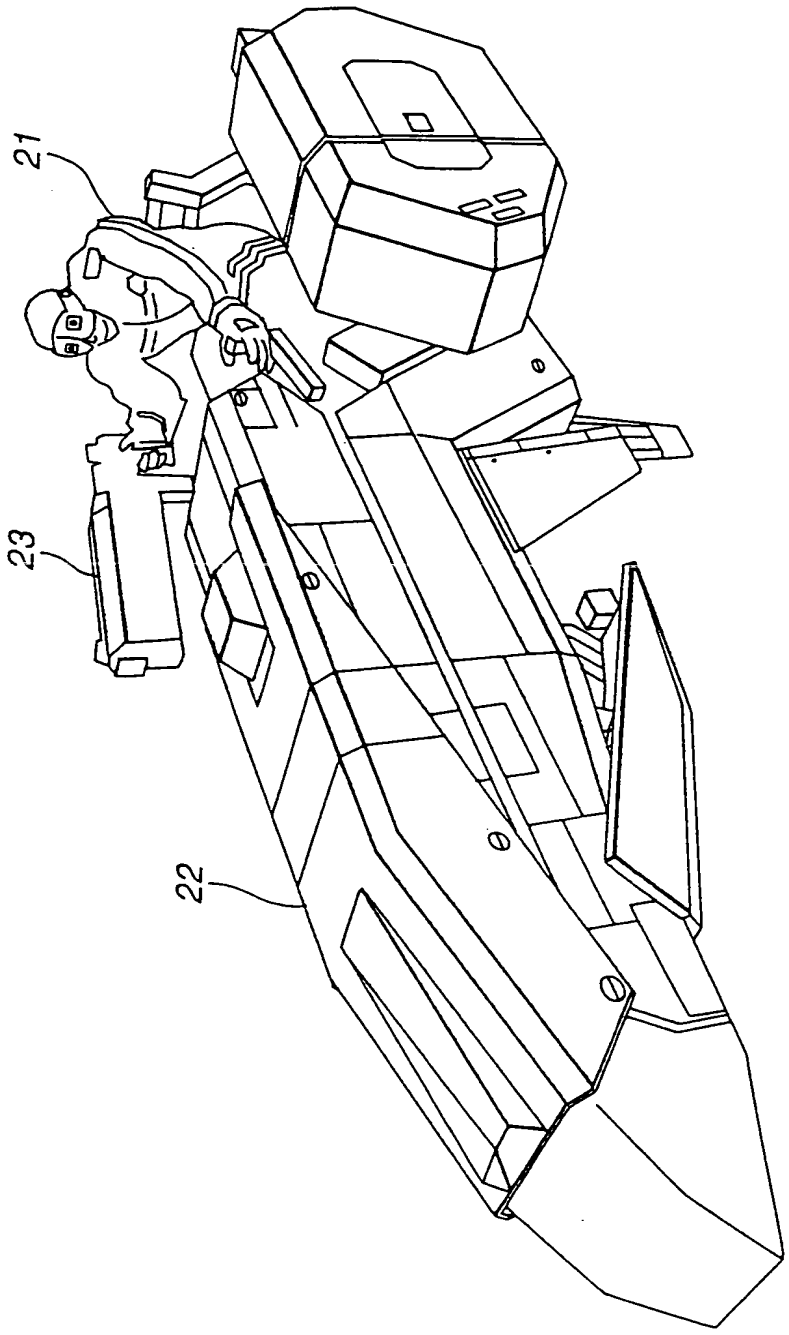


FIG.2

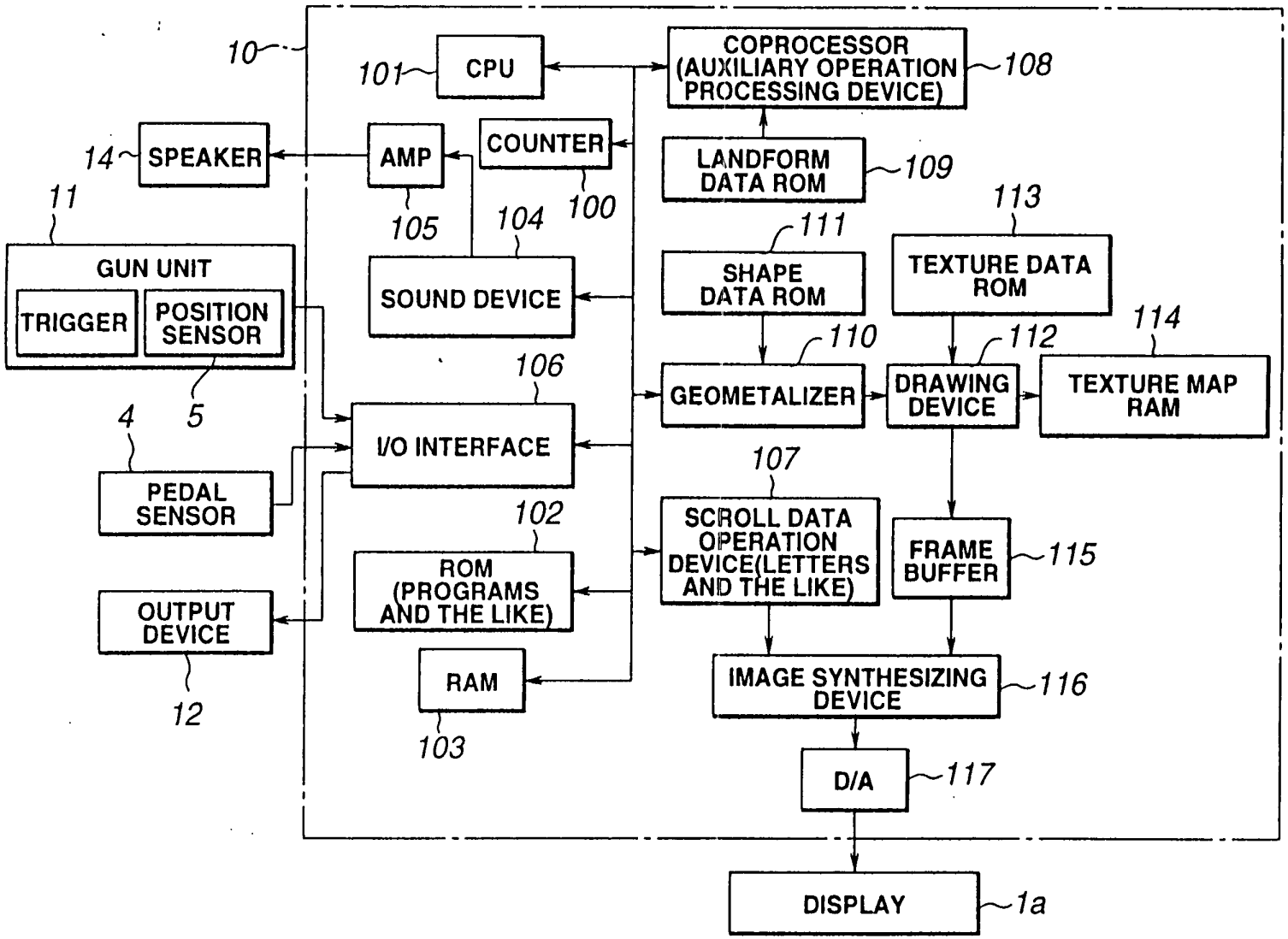

10
101
CPU
COPROCESSOR (AUXILIARY OPERATION PROCESSING DEVICE)
108
14
SPEAKER
AMP
COUNTER
LANDFORM DATA ROM
109
11
105
104
100
113
111
GUN UNIT
TRIGGER
POSITION SENSOR
SOUND DEVICE
SHAPE DATA ROM
TEXTURE DATA ROM
114
110
112
106
GEOMETALIZER
DRAWING DEVICE
TEXTURE MAP RAM
4
5
I/O INTERFACE
107
PEDAL SENSOR
102
SCROLL DATA OPERATION DEVICE(LETTERS AND THE LIKE)
FRAME BUFFER
115
ROM (PROGRAMS AND THE LIKE)
OUTPUT DEVICE
RAM
IMAGE SYNTHESIZING DEVICE
116
12
103
D/A
117
DISPLAY
1a

FIG.3

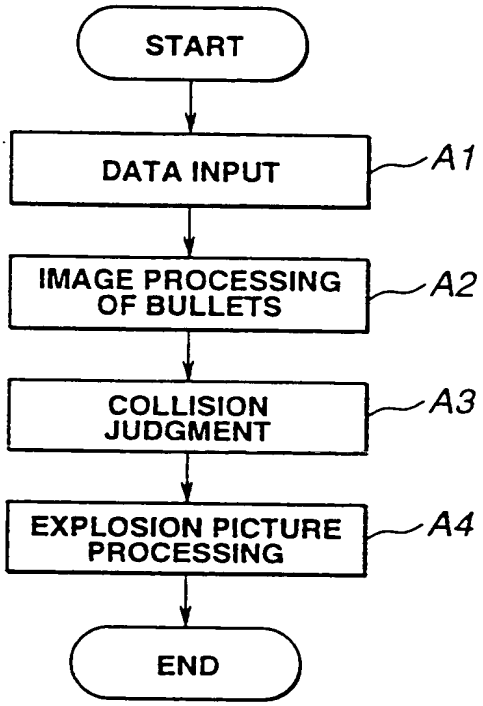

START
DATA INPUT
A1
IMAGE PROCESSING OF BULLETS
A2
COLLISION JUDGMENT
A3
EXPLOSION PICTURE PROCESSING
A4
END

FIG.4

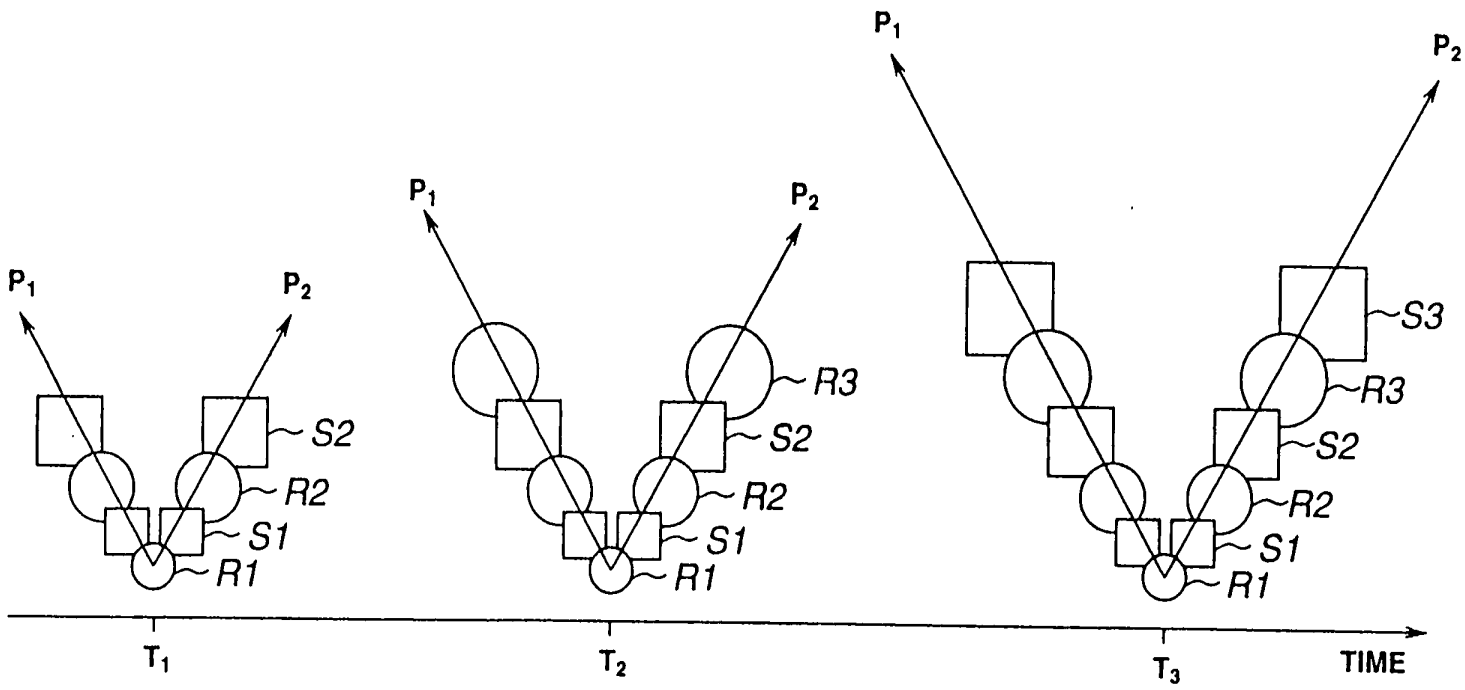


FIG.5A FIG.5B FIG.5C

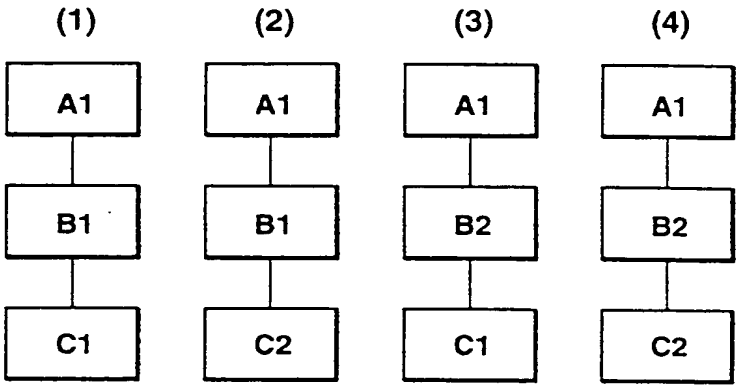


FIG.6A

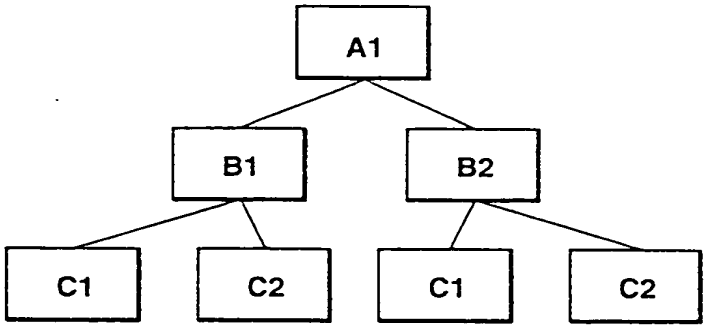


FIG.6B

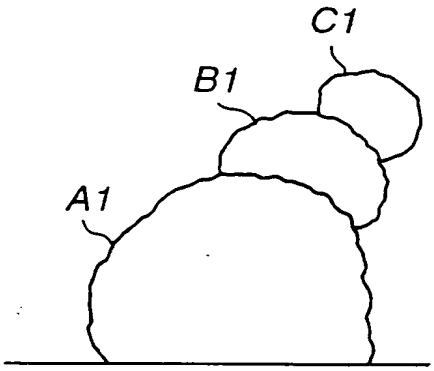


FIG.7A

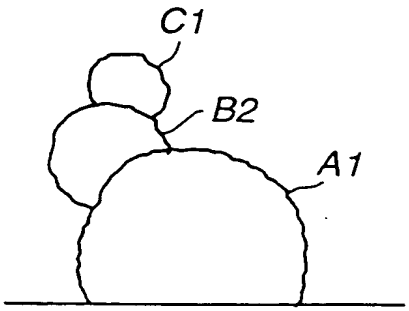


FIG.7C

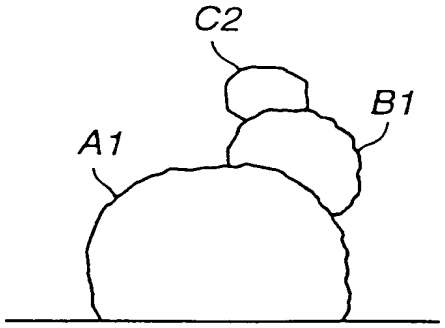


FIG.7B

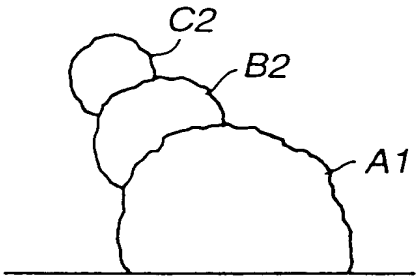


FIG.7D

FIG.8A

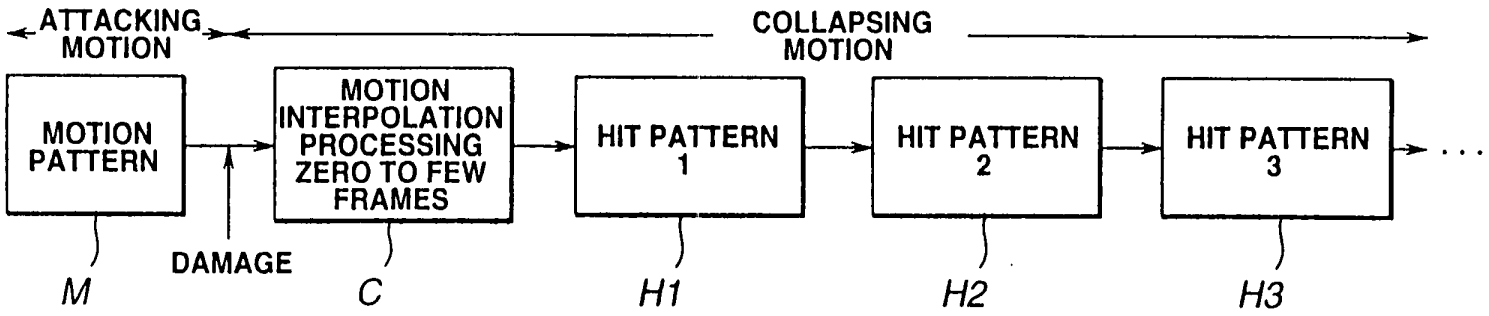
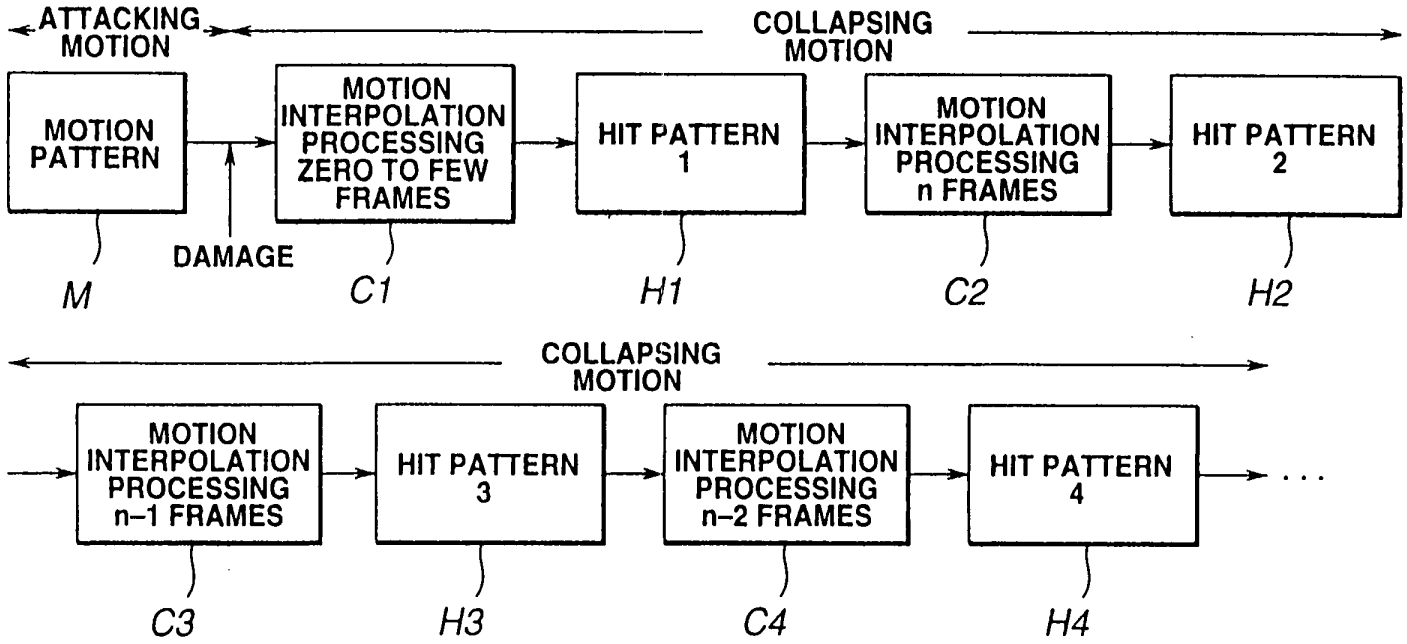

ATTACKING MOTION
COLLAPSING MOTION
MOTION PATTERN
MOTION INTERPOLATION PROCESSING ZERO TO FEW FRAMES
HIT PATTERN 1
HIT PATTERN 2
HIT PATTERN 3
DAMAGE
M
C
H1
H2
H3

FIG.8B


ATTACKING MOTION
COLLAPSING MOTION
MOTION PATTERN
MOTION INTERPOLATION PROCESSING ZERO TO FEW FRAMES
HIT PATTERN 1
MOTION INTERPOLATION PROCESSING n FRAMES
HIT PATTERN 2
DAMAGE
M
C1
H1
C2
H2
COLLAPSING MOTION
MOTION INTERPOLATION PROCESSING n-1 FRAMES
HIT PATTERN 3
MOTION INTERPOLATION PROCESSING n-2 FRAMES
HIT PATTERN 4
C3
H3
C4
H4

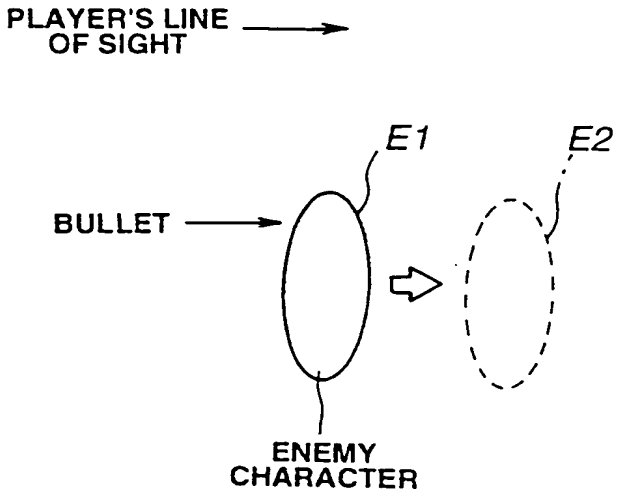

PLAYER'S LINE OF SIGHT
E1
E2
BULLET
ENEMY CHARACTER

FIG.9A

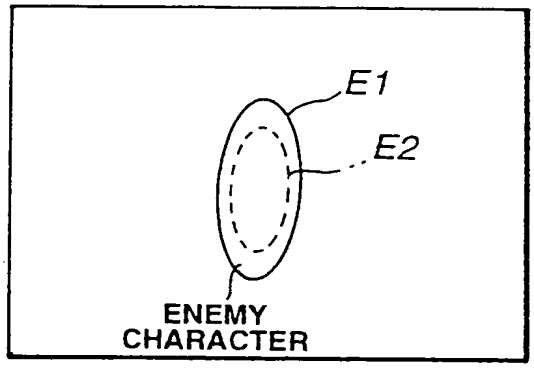

E1
E2
ENEMY CHARACTER

FIG.9B

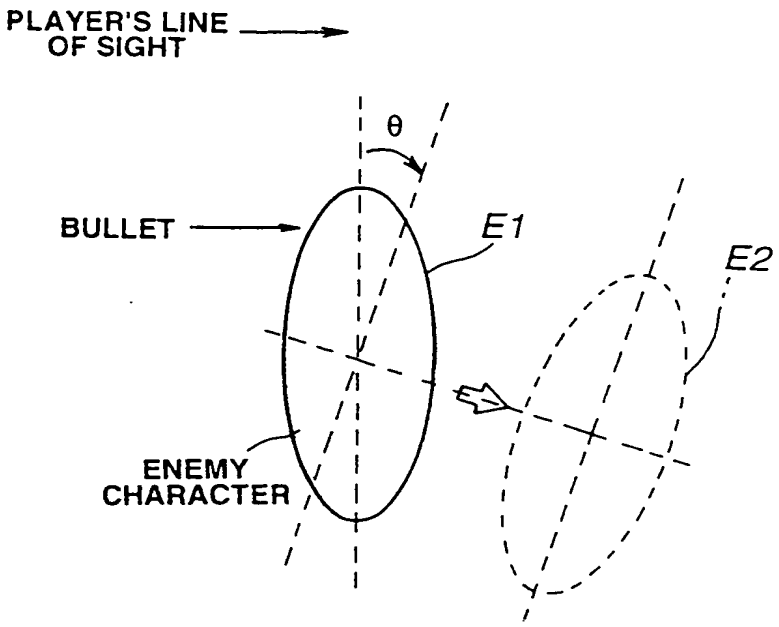


FIG.10A

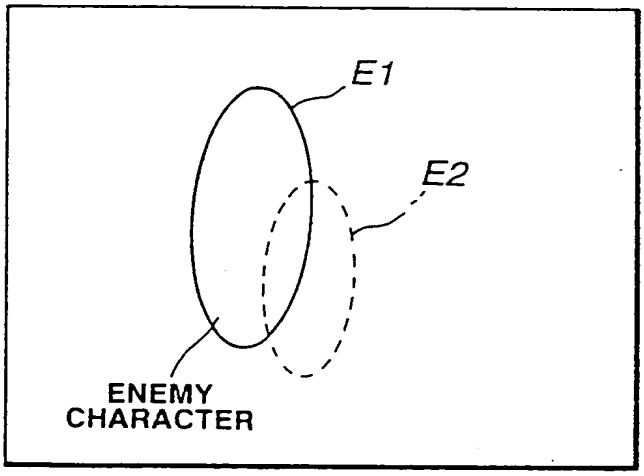
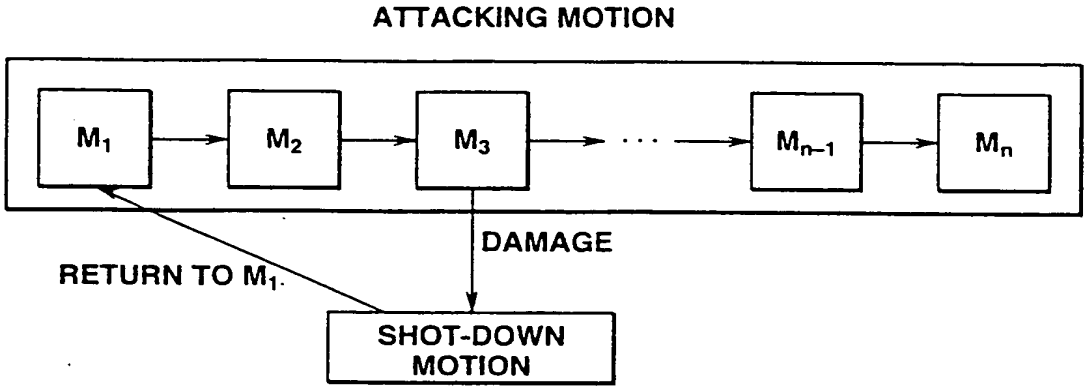


FIG.10B



DAMAGE

FIG.11A

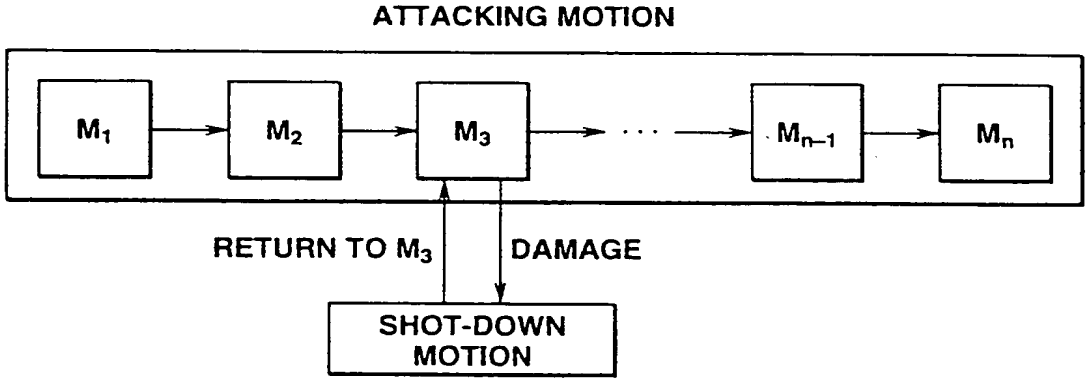


FIG.11B

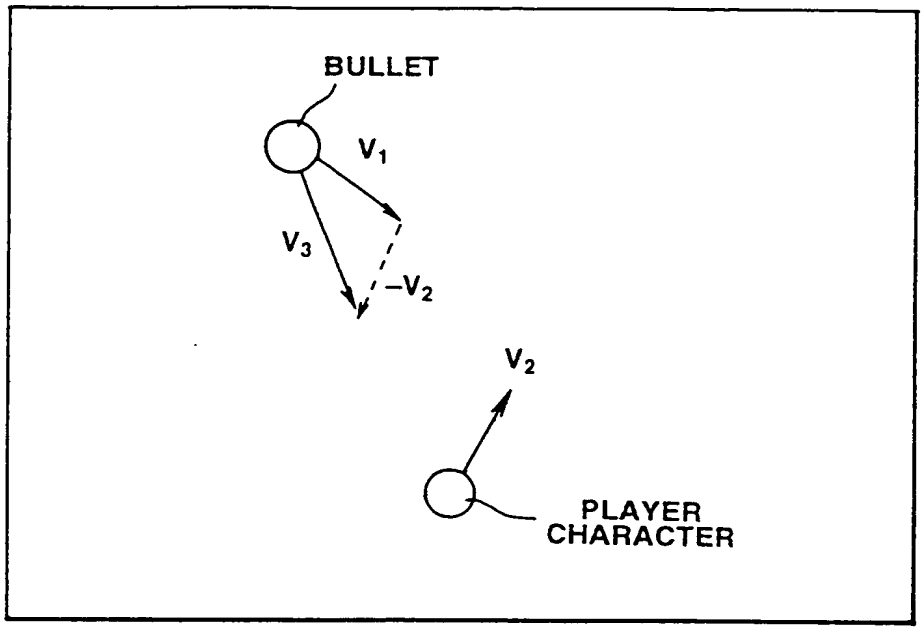


FIG.12A

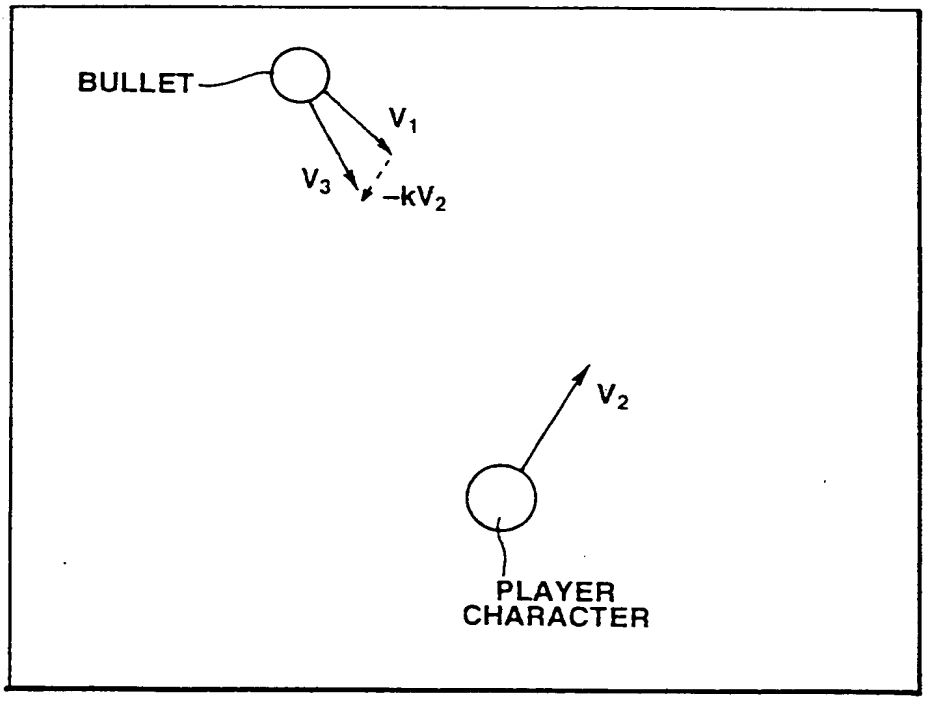


FIG.12B

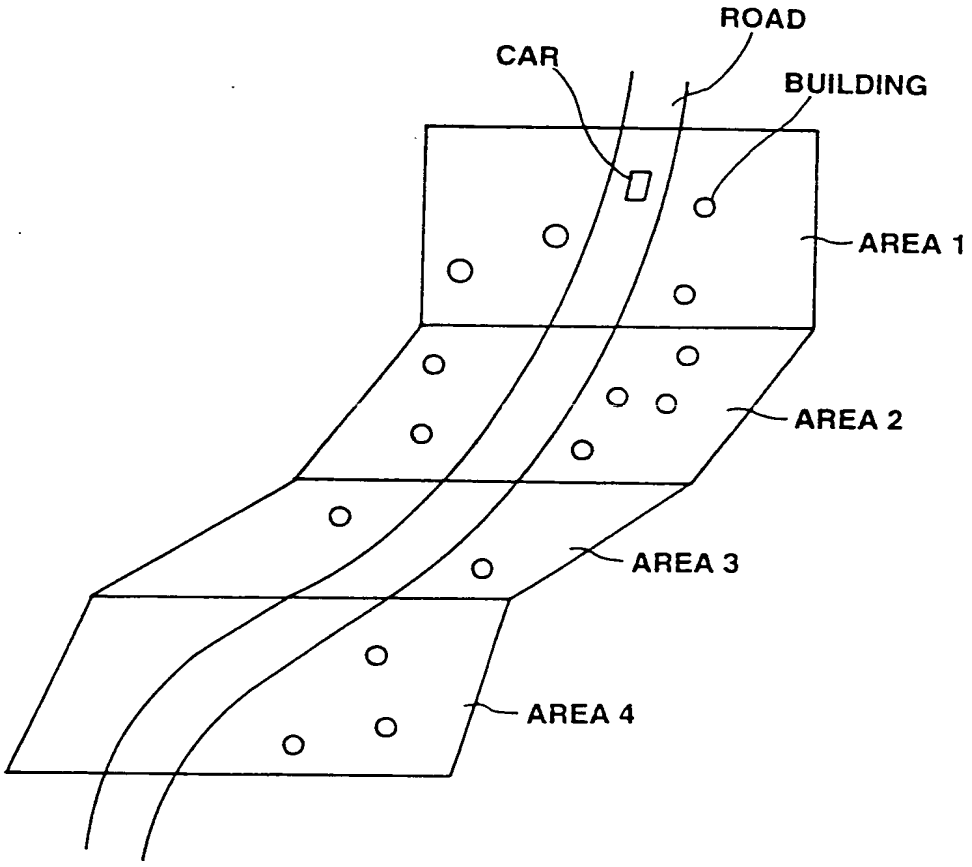


FIG.13

AREA 1	BUILDING 1, BUILDING 2, BUILDING 3, BUILDING 4
AREA 1	BUILDING 5, BUILDING 6, BUILDING 7, BUILDING 8, BUILDING 9, BUILDING 10
AREA 1	BUILDING 11, BUILDING 12,
AREA 1	BUILDING 13, BUILDING 14, BUILDING 15
AREA 1	-----

FIG.14A

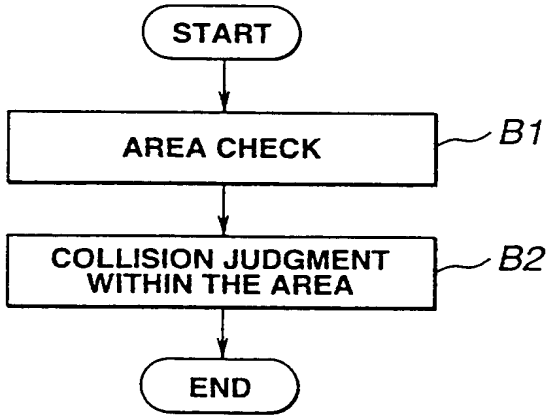


FIG.14B

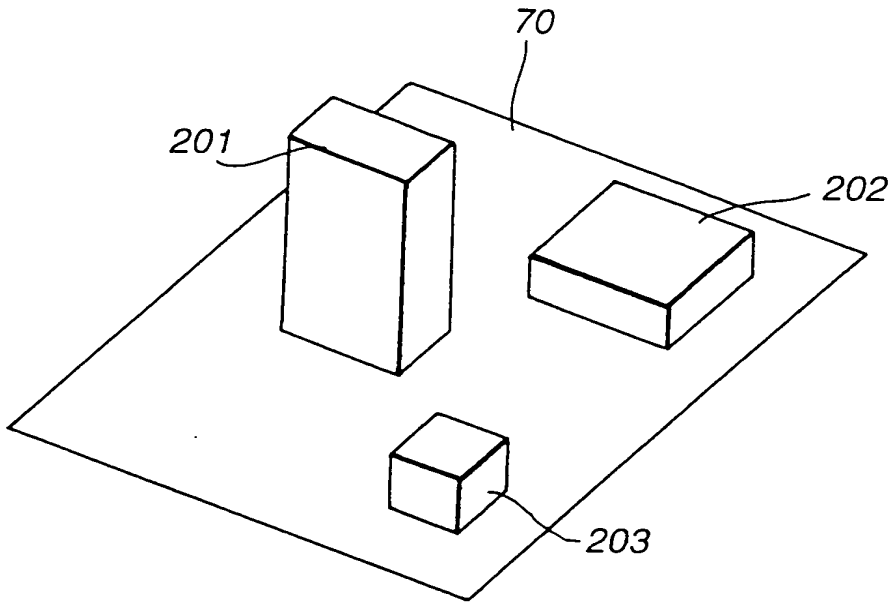


FIG.15A

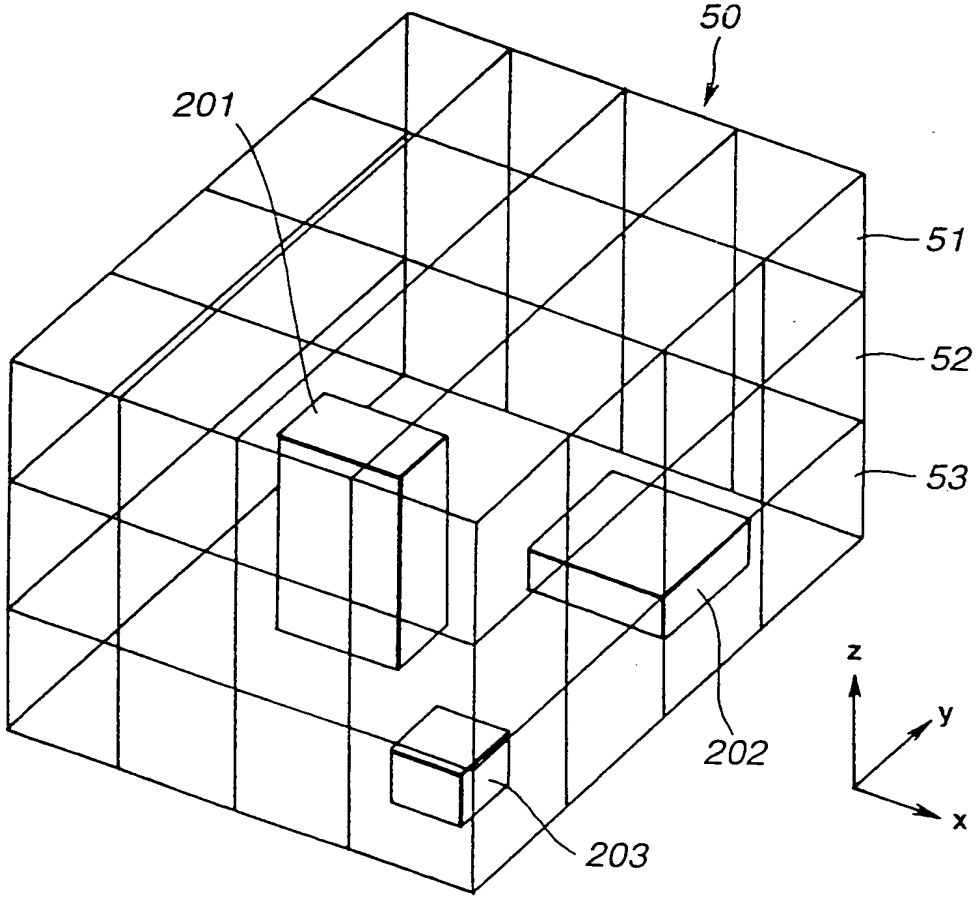


FIG.15B

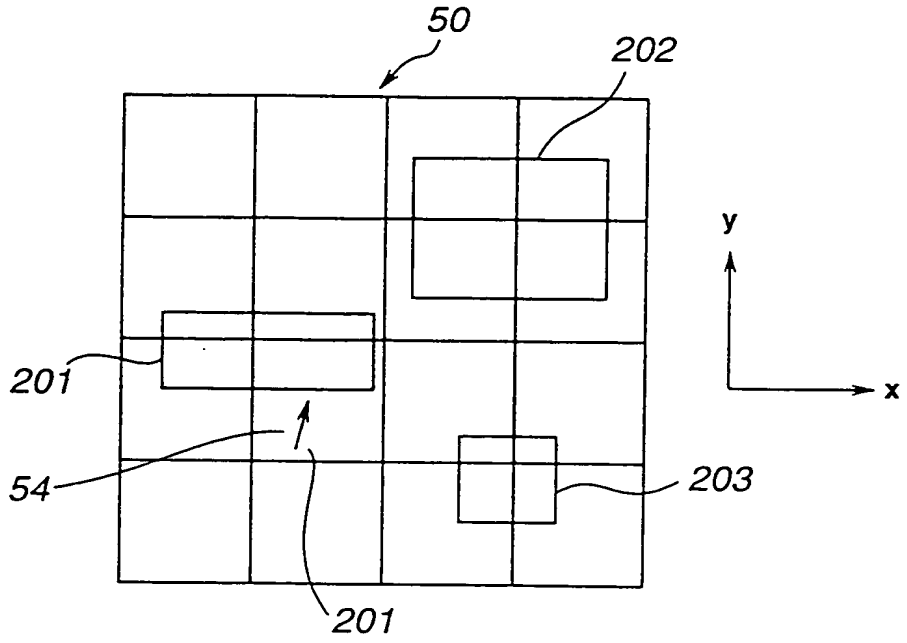


FIG.16A

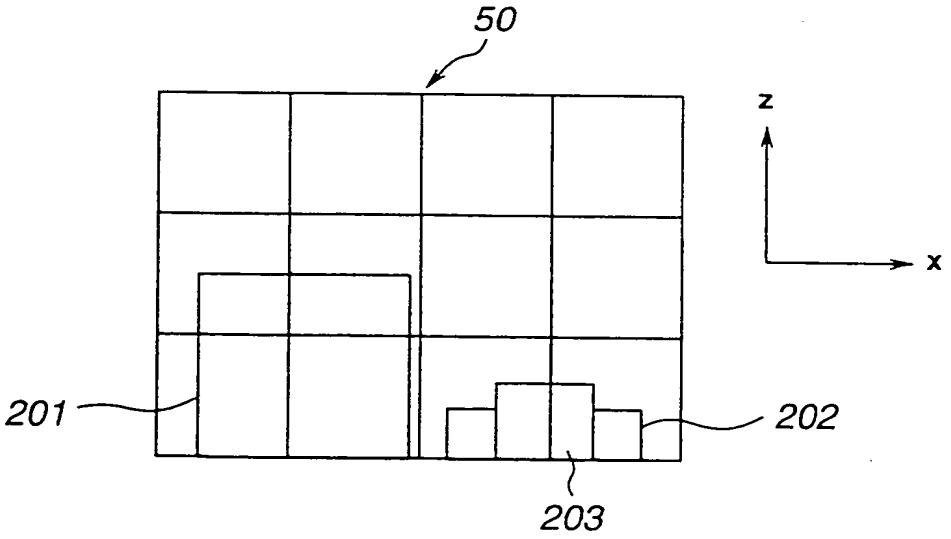


FIG.16B

GRID 1	BUILDING 1
GRID 2	BUILDING 2, BUILDING 3
GRID 3	BUILDING 4, BUILDING 5
	⋮

FIG.17A

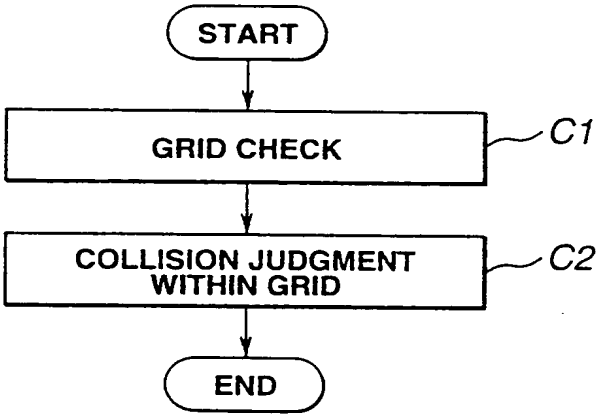


FIG.17B

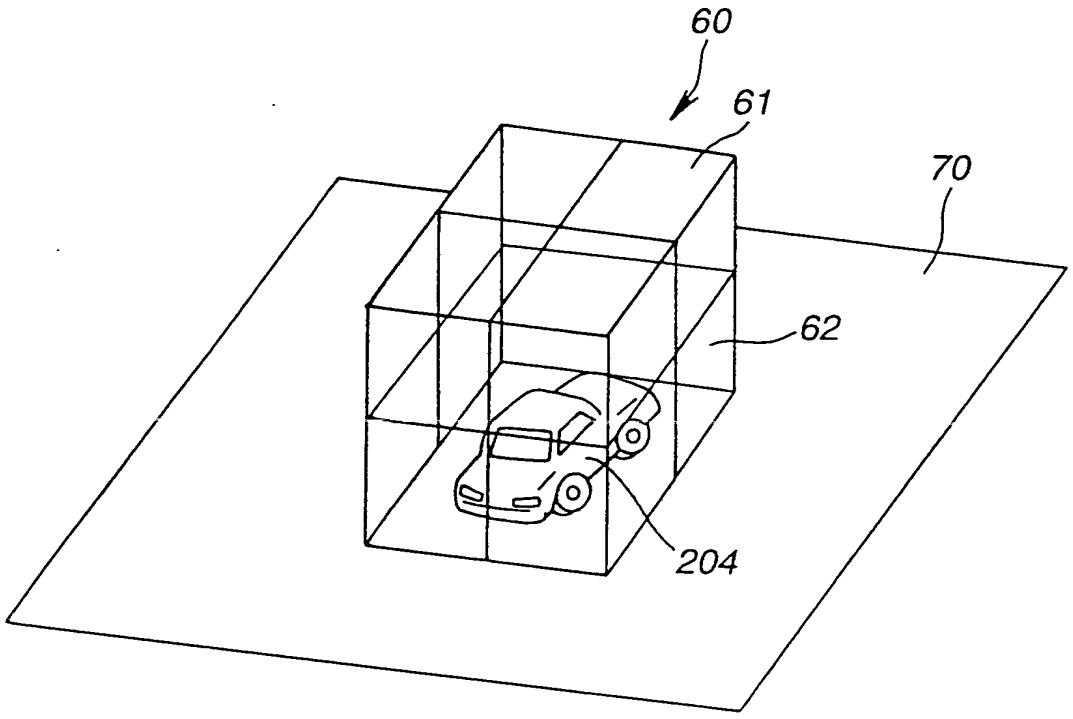


FIG.18

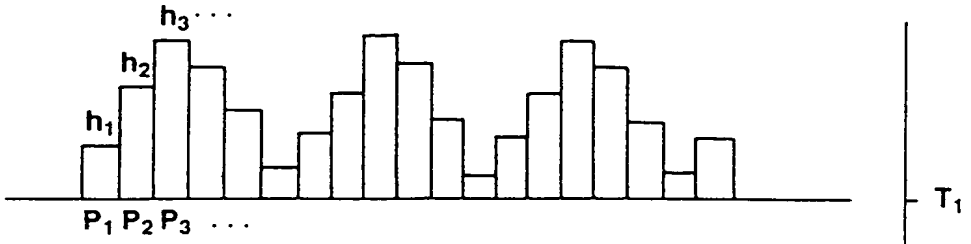


FIG.19A

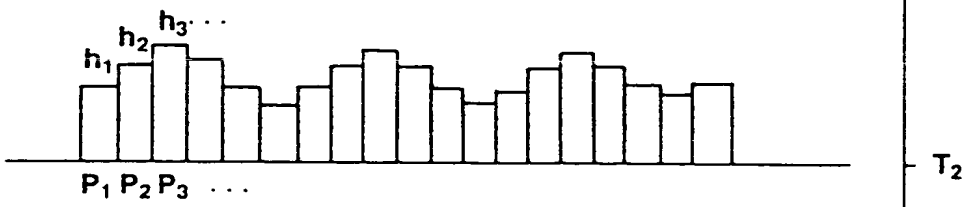


FIG.19B

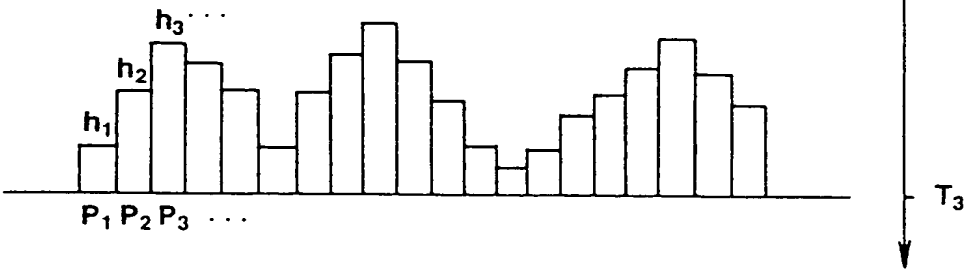


FIG.19C

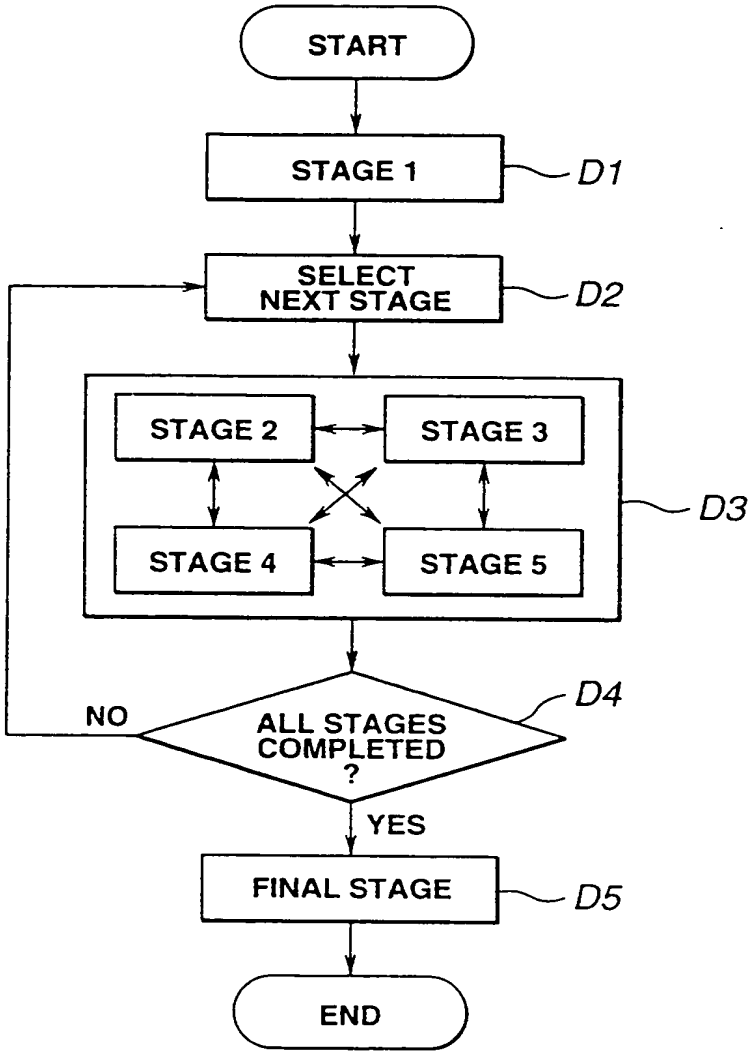

START
STAGE 1
D1
SELECT NEXT STAGE
D2
STAGE 2
STAGE 3
STAGE 4
STAGE 5
D3
NO
ALL STAGES COMPLETED ?
D4
YES
FINAL STAGE
D5
END

FIG.20

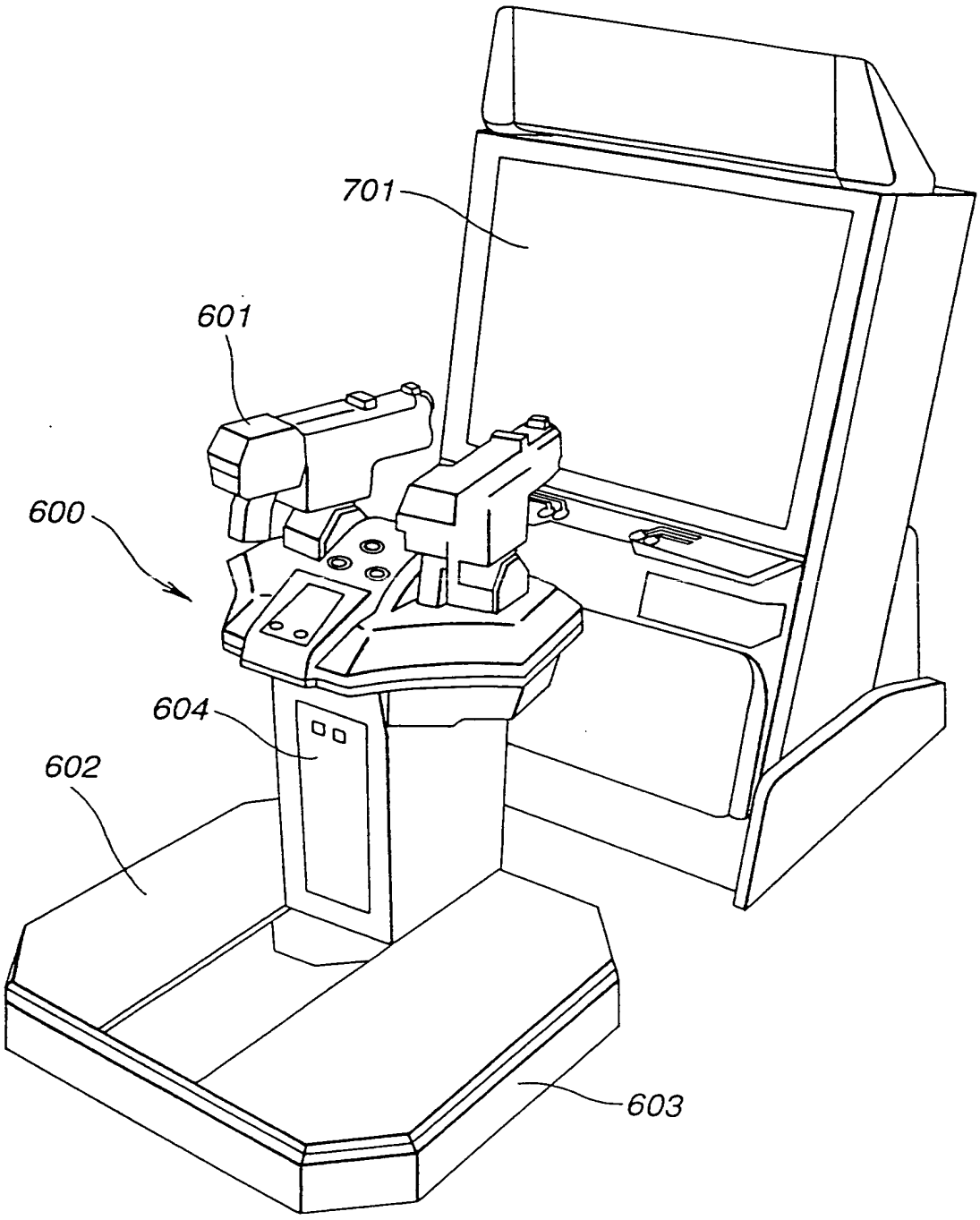


FIG.21

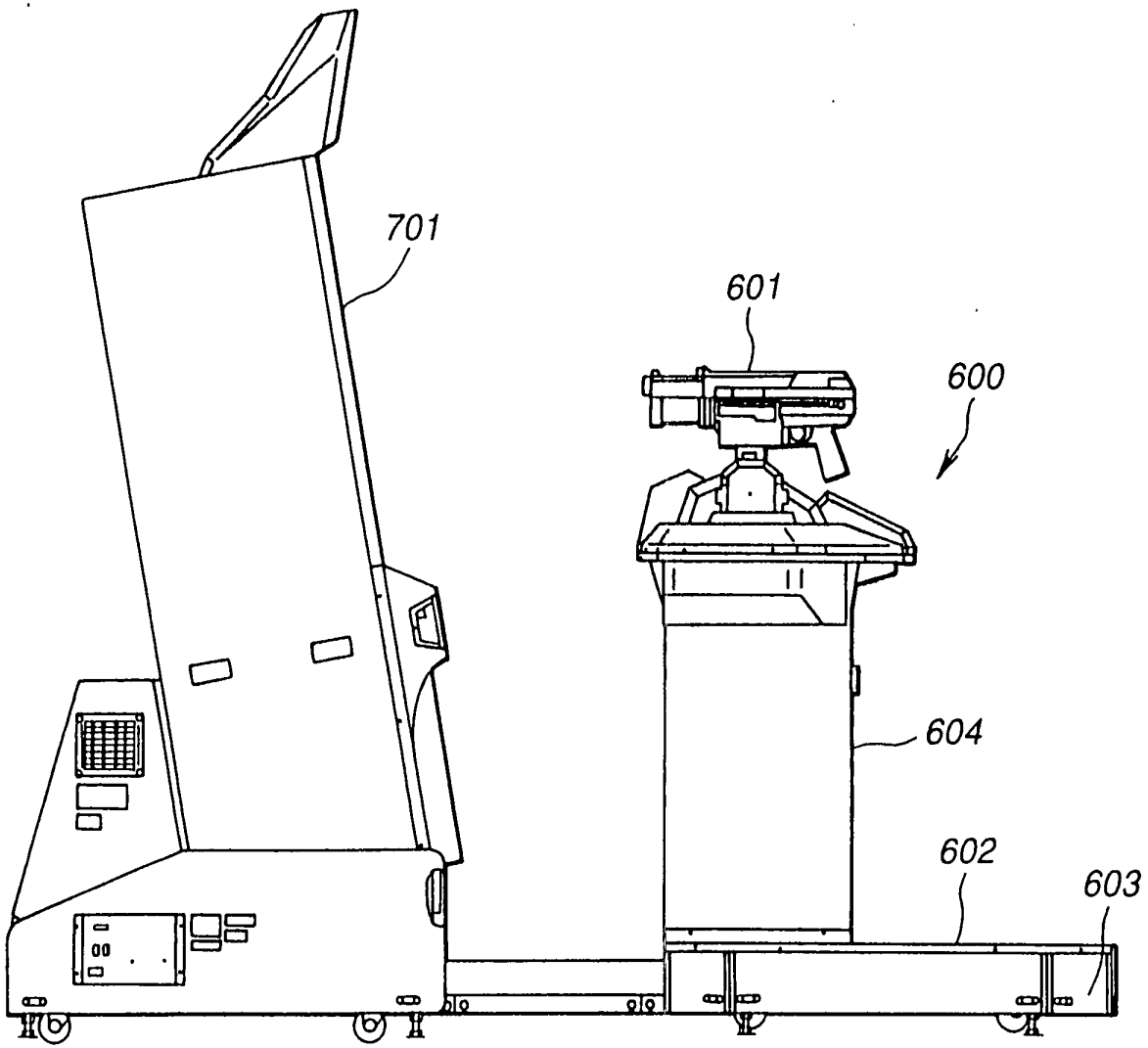


FIG.22

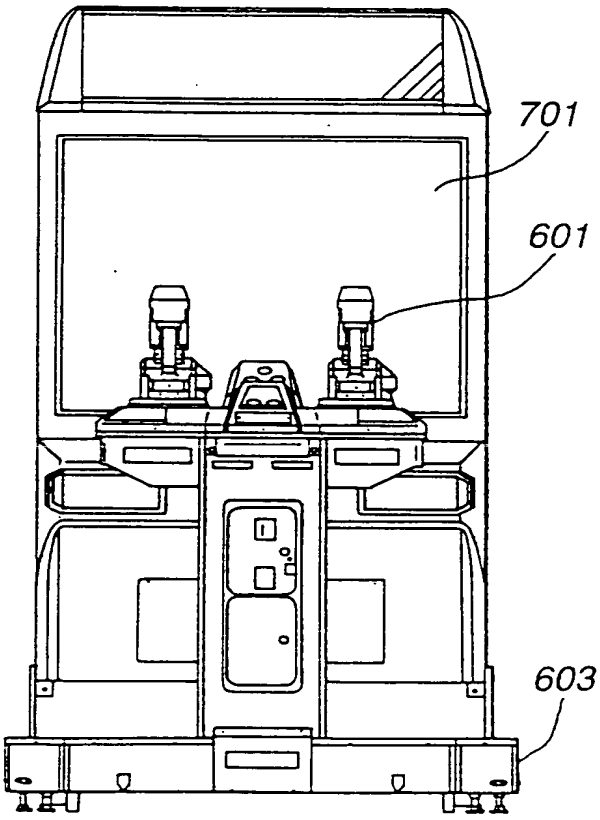


FIG.23A

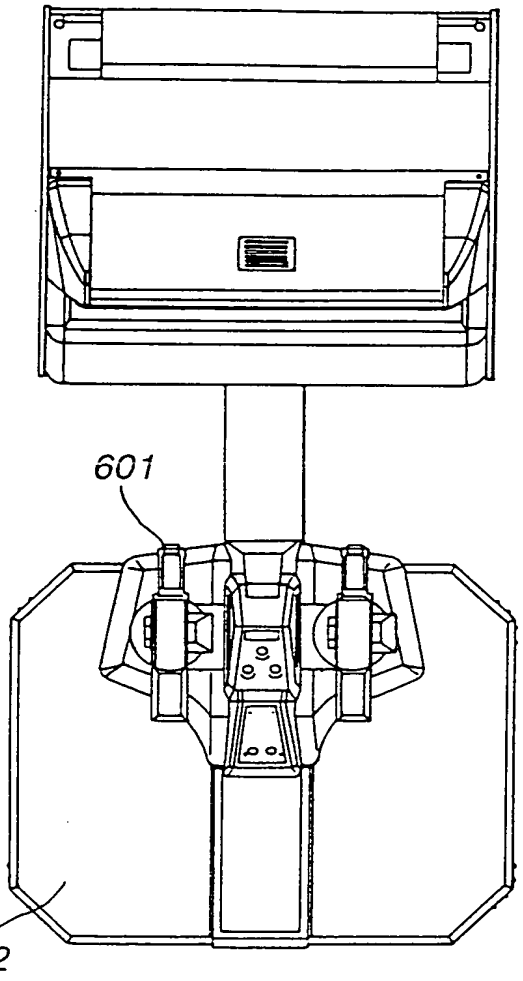


FIG.23B

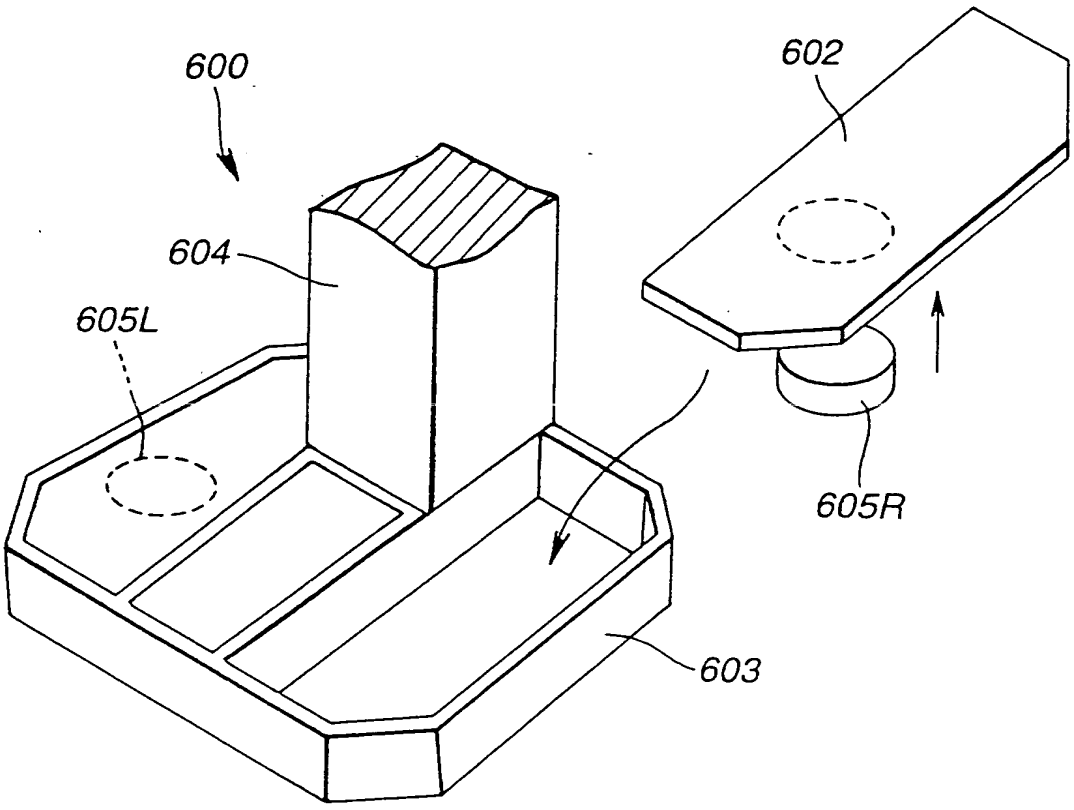


FIG.24

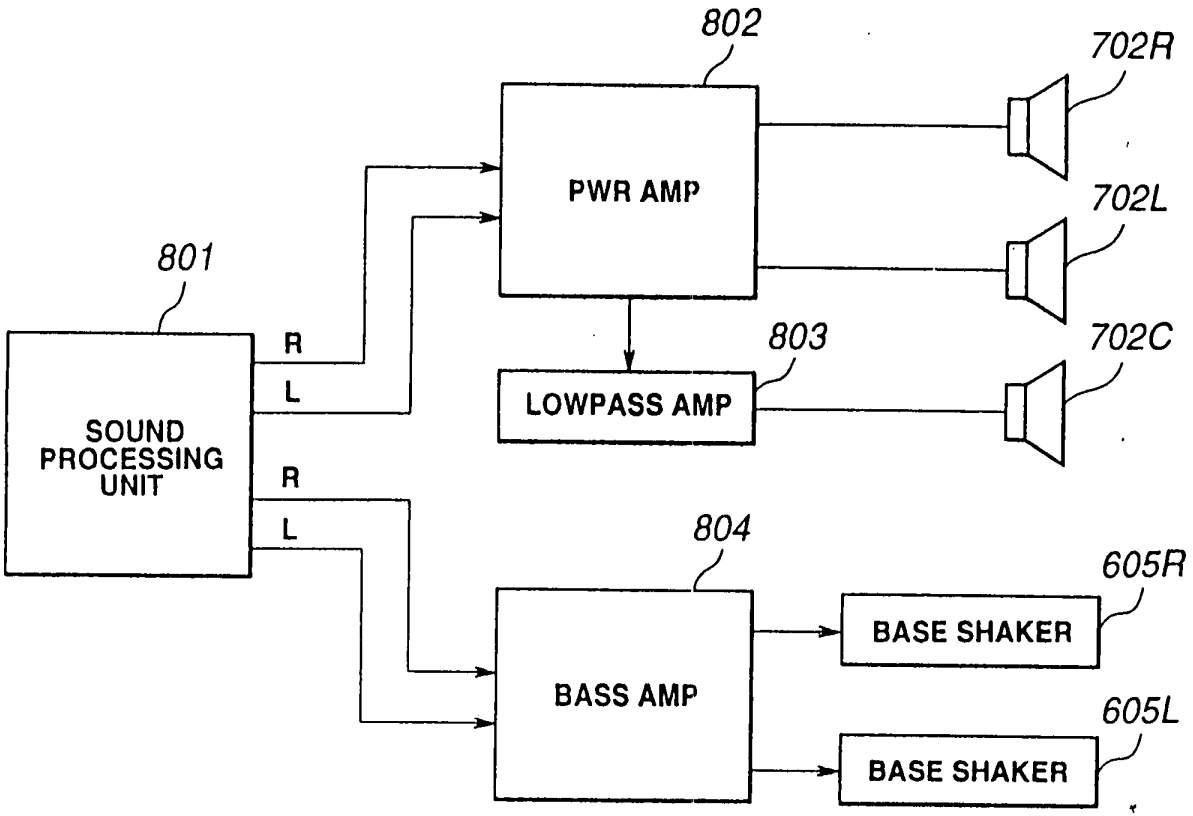

802
702R
PWR AMP
702L
801
803
702C
R
L
LOWPASS AMP
SOUND
PROCESSING
UNIT
R
L
804
605R
BASS AMP
BASE SHAKER
605L
BASE SHAKER

FIG.25